

ASSIGNMENT 2

Assignment Date	4 october 2022
Student Name	Vaishnavi.L
Student Roll Number	311419106033
Maximum Marks	2 Marks

QUESTION:

Build a python code, Assume you get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

Aim:

To get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature

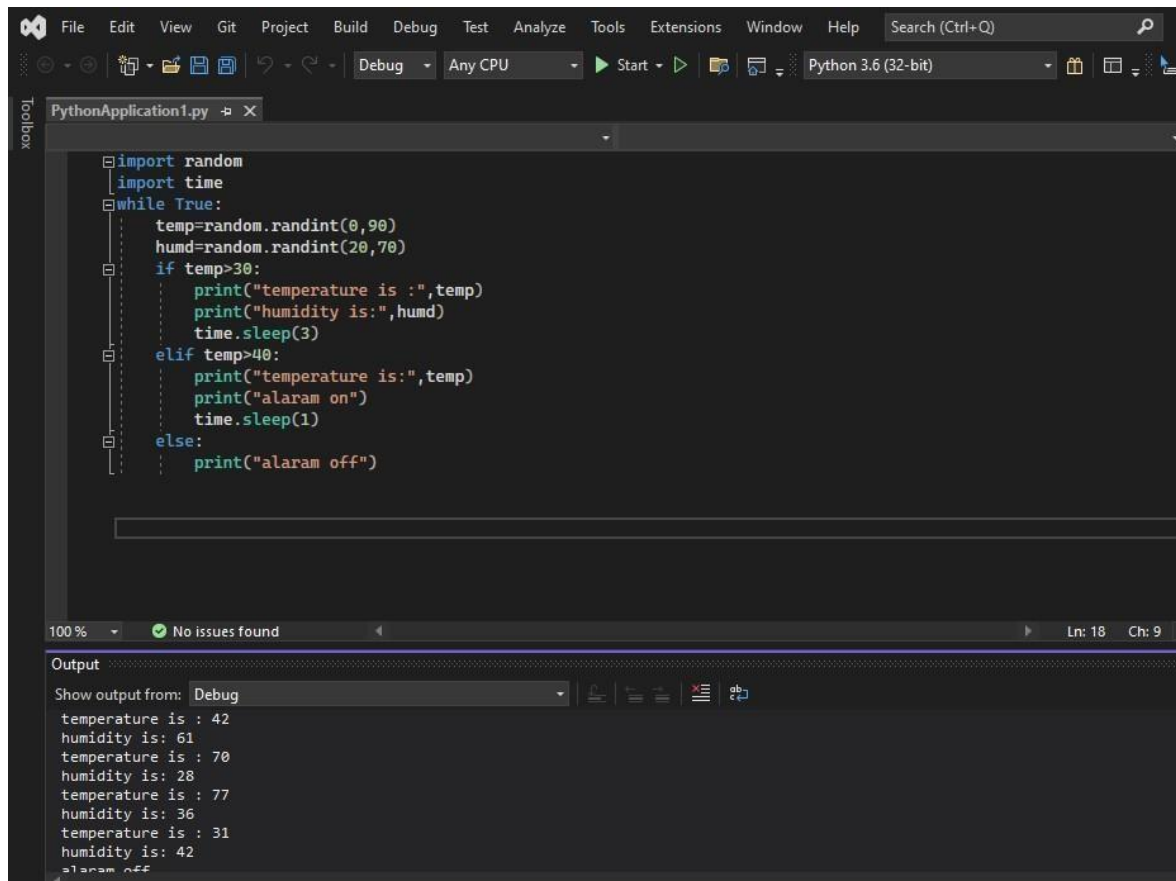
Code:

```
import random
import time
while True:
    temp=random.randint(0,90)
    humd=random.randint(20,70)
    if temp>30:
        print("temperature is :",temp)
        print("humidity is:",humd)
        time.sleep(3)
    elif temp>40:
        print("temperature is:",temp)
        print("alaram on")
        time.sleep(1)
    else:
        print("alaram off")
```

output:

temperature is : 48
humidity is: 55 temperature
is : 90 humidity is: 66
temperature is : 57
humidity is: 43 temperature
is : 42 humidity is: 32
temperature is : 59
humidity is: 47 temperature
is : 42 humidity is: 25
alarm off temperature is :
80 humidity is: 35 alarm
off temperature is : 55
humidity is: 50 temperature
is : 59 humidity is: 42
alarm off temperature is :
77 humidity is: 48
temperature is : 42
humidity is: 63 alarm off
alarm off

program screen:



The image shows a screenshot of a Python IDE, likely Visual Studio Code, with a dark theme. The main editor window displays a Python script named `PythonApplication1.py`. The script uses the `random` and `time` modules in a `while True` loop to generate random temperature and humidity values. It includes conditional logic to print messages and sleep for specific durations based on these values. A sidebar on the left shows a file explorer with the current file selected. The bottom status bar indicates '100 %' zoom, 'No issues found', and the current line and column as 'Ln: 18 Ch: 9'. Below the editor, the 'Output' panel is active, showing the execution results of the script.

```
import random
import time
while True:
    temp=random.randint(0,90)
    humd=random.randint(20,70)
    if temp>30:
        print("temperature is :",temp)
        print("humidity is:",humd)
        time.sleep(3)
    elif temp>40:
        print("temperature is:",temp)
        print("alaram on")
        time.sleep(1)
    else:
        print("alaram off")
```

Output

Show output from: Debug

```
temperature is : 42
humidity is: 61
temperature is : 70
humidity is: 28
temperature is : 77
humidity is: 36
temperature is : 31
humidity is: 42
alaram off
```

Output screen:

```
C:\Users\Home\AppData\Local\Programs\Python\Python36-32\python.exe
alarm off
temperature is : 34
humidity is: 44
temperature is : 41
humidity is: 62
temperature is : 87
humidity is: 56
temperature is : 59
humidity is: 21
alarm off
alarm off
alarm off
alarm off
temperature is : 33
humidity is: 52
temperature is : 47
humidity is: 32
alarm off
alarm off
alarm off
temperature is : 78
humidity is: 65
temperature is : 51
humidity is: 55
temperature is : 32
humidity is: 65
temperature is : 80
humidity is: 61
temperature is : 36
humidity is: 39
```

Result:

Thus temperature and humidity values are derived and alarm is detected at high temperature.